Amendment Filed June 27, 2003 Appln. No. 09/482,956 Page 2

Please replace the paragraph at page 5, line 19, with the following replacement paragraph:

Moreover, the switch fabric 25 is configured to include multiple address tables that are configured to optimize lookup times for address entries. Specifically, each address table 30 is configured for storing the layer 2 and layer 3 switching information for the corresponding subnetwork 18. Hence, the switch module 25, under the control of switching logic 32, accesses a selected one of the address tables 30 based on the corresponding subnetwork identifier. The switching module 25 can then search within the selected address table (e.g., 30a) for the layer 3 switching information of the received layer 2 data packet based on the corresponding host identifier. Hence, search times can be dramatically reduced by providing a plurality of address tables 30 that can be independently accessed by the switching logic 32 on a per-subnetwork basis. As illustrated in Figure 1, each of the address tables 30 are assigned to the corresponding one of the network switch ports 20, enabling each network switch port to handle a corresponding subnetwork 18. Hence, the switching logic 25 is capable of providing lookup processing for each of the ports 20 simultaneously and in parallel, merely by identifying the table by the subnet identifier supported by the corresponding switch port 20.

Please replace the paragraph at page 7, line 23, with the following replacement paragraph:



If the switching logic 32 does not find the table entry in step 58, then the switching logic 32 stores in step 60 address information from the layer 2 packet, including the host identifier 46, the MAC address, and any virtual LAN (VLAN) association information to be used for learning operations. However if the switching logic 32 does find the table entry in step 58, then the switching logic 32 fetches the layer 3 switching information in step 62.